

1. (Not Changed From Prior Version) An electron-emitting device comprising:

a pair of conductors provided on a substrate so as to be opposed to each other; and

a pair of films containing carbon as a main component which respectively connected to the pair of conductors and disposed with a gap therebetween, wherein sulfur is contained in the deposition film in a range of not less than 1 mol% and not more than 5 mol% as a ratio to carbon.

2. (Not Changed From Prior Version) An electron-emitting device comprising:

a pair of device electrodes provided on a substrate so as to be opposed to each other;

an electroconductive film which is connected to the pair of device electrodes and has a fissure between the pair of device electrodes; and

a film containing carbon as a main component which is formed in the fissure and on an area including the fissure and has a gap whose width is narrower than the fissure in the fissure,

wherein sulfur is contained in the film containing carbon in a range of not less than 1 mol% and not more than 5 mol% as a ratio to carbon.

3. (Not Changed From Prior Version) An electron source comprising:

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JUN 24 2002
TC 2800 MAIL ROOM

a plurality of electron-emitting devices as defined in claim 1 or 2
which are provided on a substrate; and

a wiring connected to a plurality of the electron-emitting devices.

4. (Not Changed From Prior Version) An image-forming apparatus
comprising:

an electron source as defined in claim 3; and

an image-forming member for forming an image by collision of an
electron emitting from the electron source.

5. (Not Changed From Prior Version) An electron-emitting device
comprising a carbon film composed mainly of carbon, and

an electrode electrically connected to the carbon film,

wherein sulfur is contained in the carbon film in a ratio of 5 mol% or
less with respect to carbon.

6. (Not Changed From Prior Version) An electron-emitting device
comprising:

a carbon film composed mainly of carbon, and

an electrode electrically connected to the carbon film,

wherein sulfur is contained in the carbon film in a ratio of from
1 mol% to 5 mol% with respect to carbon.

7. (Not Changed From Prior Version) An electron-emitting device comprising:

a pair of electroconductors disposed on a substrate; and
a pair of films connected to the pair of electroconductors,
respectively, disposed with a gap therebetween and containing carbon as a main component,
wherein sulfur is contained in said films in a ratio of 5 mol% or less
with respect to carbon.

8. (Not Changed From Prior Version) An electron-emitting device comprising:

a pair of device electrodes disposed on a substrate;
an electroconductive film connected to the pair of device electrodes
and having a first gap between the pair of device electrodes; and
a film containing carbon as a main component, said carbon film being
disposed on the electroconductive film and having a second gap, located within the first gap,
said second gap being narrower in width than the first gap,
wherein sulfur is contained in the carbon film in a ratio of 5 mol% or
less with respect to carbon.

9. (Not Changed From Prior Version) An electron-emitting device comprising:

a pair of device electrodes disposed on a substrate so as to face each
other;

an electroconductive film connected to the pair of device electrodes and having a first gap between the pair of device electrodes; and

a film containing carbon as a main component, said carbon film being disposed on the electroconductive film and having a second gap, located within the first gap, said second gap being narrower in width than the first gap,

wherein sulfur is contained in the carbon film in a ratio of from 1 mol% to 5 mol% with respect to carbon.

10. (Not Changed From Prior Version) An electron source comprising a plurality of electron-emitting devices according to any one of claims 5 to 9, wherein said devices are disposed on a substrate, and wirings connected to said electron-emitting devices.

11. (Not Changed From Prior Version) An image-forming apparatus comprising an electron source according to claim 10, and an image forming member.

--12. (New) An electron-emitting device comprising:
a carbon film composed chiefly of carbon; and
an electrode electrically connected to the carbon film,
wherein sulfur is contained in the carbon film in a rate of 1 mol% or more with respect to carbon.

13. (New) An electron source comprising:

a substrate;

a plurality of electron-emitting devices disposed on the substrate, each electron-emitting device being an electron-emitting device according to claim 12; and

wirings connected to the electron-emitting devices.

14. (New) An image-forming apparatus comprising an electron source according to claim 13, and a phosphor.

15. (New) An electron-emitting device comprising:

a carbon film composed chiefly of carbon; and

an electrode electrically connected to the carbon film,

wherein sulfur is contained in the carbon film.

16. (New) An electron source comprising:

a substrate;

a plurality of electron-emitting devices disposed on the substrate, each electron-emitting device being an electron-emitting device according to claim 15; and

wirings connected to the electron-emitting devices.

17. (New) An image-forming apparatus comprising an electron source according to claim 16, and a phosphor.--